



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,669	10/06/2000	Rakesh Kumar	13733	3003

28166 7590 04/21/2005

MOSER, PATTERSON & SHERIDAN, LLP
/SARNOFF CORPORATION
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

NAKHJAVAN, SHERVIN K

ART UNIT	PAPER NUMBER
----------	--------------

2621

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/680,669

Applicant(s)

KUMAR ET AL.

Examiner

Shervin Nakhjavan

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-27 is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Request for Continued Examination

1. The RCE filed on 2-4-05 has been entered.

Response to Arguments

2. Applicant's arguments see remarks pages 7-9 filed 2-4-05 have been fully considered and it is persuasive in view of claim 12. Therefore, the rejection of claims 12-23 has been withdrawn. Applicant alleges that the prior art of record Bergen et al. (WO 9821688) does not teach or suggest tracking actors or objects through more than one scene, and in addition Bergen et al. does not disclose identifying common attributes, tracking those common attributes through a plurality of video segments or video clips and storing segments or clips comprising the tracked identified common attributes. Applicant further discusses the benefits of the invention as disclosed, on page 2 of the remarks (Page 8 of the amendment). While examiner agrees that applicant's invention may be different *as disclosed in the specification*, the claim language does not require such features and therefore applicant should not read limitations or features from the specification into the claims. The broad language of claim 1 comprising video segments does not require the attributes to be a video information or content, attributes could be non-video information i.e. camera information related to scenes or shots of video. Bergen et al. teach limitations of the newly amended claim 1 in page 19, Lines 5-11, ("Video scenes may also be represented in terms of layers. Layers are an extension to the basic mosaic concept for representing background motion. In the layered video representation, a separate mosaic "layer" is constructed for a foreground object. The foreground object is then *tracked* on a frame to

Art Unit: 2621

frame basis by tracking the layer incorporating the object. Each shot is stored as a set of layered mosaics, a set of warping parameters for each layer for each frame, and a set of foreground residuals (if present)"). Wherein a common foreground objects or attributes is identified and tracked through plurality of frames or video segments and stored as a layer.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergen et al. (WO 98/21688).

Regarding claims 1, Bergen teaches apparatus for processing video comprising: a segmenter for segmenting video sequences into a plurality of video segments (Page 19, Line 5, wherein a video sequence inherently segmented into plurality of scenes); a video processor for processing the video segments of the video sequences, identifying common attributes between video segments (Page 19, Lines 7-8, where the foreground objects are the common attributes between the frames) and tracking the identified common attributes through the plurality of processed video segments (Page 19, Lines 8-9, wherein the objects are tracked though the frame of a layer); and a database for storing processed segments of the video sequences, where the stored processed

Art Unit: 2621

segments comprise video segments having the tracked identified common attributes (Page 19, Lines 9-11, wherein the layers of the tracked frames are stored).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Courtney (US 5,969,755).

Courtney teaches limitation of claims 1, 10 and 11 apparatus for processing video comprising: a segmenter for segmenting video sequences into a plurality of video segments (Column 4, Lines 29-45, wherein object segmentation is performed, generating video segments); a video processor for processing the video segments of the video sequences, identifying common attributes between video segments (Column 4, Lines 54-56, wherein identification of objects is performed in each frame) and tracking the identified common attributes through the plurality of processed video segments (Column 4, Lines 56-59); and a database for storing processed segments of the video sequences, where the stored processed segments comprise video segments having the tracked identified common attributes (Column 5, Lines 4-6);

Courtney teaches limitation of claim 10, said video processor further comprises: a signal enhancer, coupled to a temporary storage, for enhancing the video sequence

Art Unit: 2621

(Column 5, Line 58 through Column 6, Line 21, where the low-pass filter in figure 6, is the signal enhancer of the segmentor 21 of figure 5 which is coupled to temporary storage 20 of figure 5);

Courtney teaches limitation of claims 11, the signal enhancer comprises of noise reduction circuit (Column 6, Lines 13-15).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergen et al. in view of Brodersen et al. (US 6,453,459).

Regarding claims 2-4 Bergen teaches number of limitation of claims including authoring of interactive deices or pages including links made by common attributes of the video segments or clips of claims 4 and 18 (Page 21, Lines 27-34, where by pointing at the object such as the baseball player all the related stored scenes to the player will be retrieved) however, Bergen fails to specifically teach DVD authoring tool and utilizing the same to link segments or clips of video to each other. Brodersen teaches, limitation of claim 2, apparatus further comprising: a DVD authoring tool (Column 5, Lines 11-14);

Art Unit: 2621

Limitation of claim 3, said DVD authoring tool provides interactive links between video segments (Column 13, Lines 32-43, where interactive data is authored in the DVD to link the consumer to other data source).

It would have been obvious to an ordinary skilled person in the art to utilize Bodersen's DVD authoring capability because, it would like the CD-Rom storage capability of Bergen's system, be a larger mass data storage means to provide not only storing greater amounts of multimedia and other information, but also for more interactive data retrieval by consumers (Column 1, Lines 13-15).

9. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergen et al. in view of Kenner et al. (US 5,956,716).

Regarding claims 5-9 Bergen teaches number of limitations of the claims including generation of video indexing and browsing using hyper-video having interactive capabilities and links to other information (Page 21, Lines 22-34, where a pointing device is used to interactively link to other information sources) including links made by common attributes of the video segments of claims 7 and 15 (Page 21, Lines 27-34, where by pointing at the object such as the baseball player all the related stored scenes to the player will be retrieved) however, Bergen fails to specifically teach authoring a web page. Kenner teaches Limitation of claims 5, a web page authoring tool (Column 5, Lines 38-40);

Limitation of claims 6, said web page authoring tool provides interactive links between video segments (Column 5, Lines 40-52, where links to other video clips are made through web pages);

Art Unit: 2621

Limitation of claim 8, apparatus further comprising: a low resolution video compressor and a high resolution video compressor (Column 6, Lines 1-11, where MPEG1 is the low resolution compressor and MPEG2 is the high resolution compressor based on the defined of bandwidth for each scheme i.e. MPEG2 can carry 40 Mbps);

Limitation of claim 9, apparatus further comprising a temporary storage, coupled to said at least one video compressor, for storing said video sequence (Column 8, Lines 51-55).

It would have been obvious to an ordinary skilled person in the art to utilize web page capability of Kenner with Bergen's system because, it would provide for remotely stored video content to be requested and retrieved from a server selected so as to maximize network capacity and minimize transmission delays (Column 1, Lines 12-16).

Allowable Subject Matter

10. The following is an examiner's statement of reasons for allowance: claims 12-27 are allowed because, the prior art of record specifically Courtney et al. (US 5,969,755) fails to teach segmenting the video sequence into clips, identifying common attributes between *clips* tracking the identified common attributes through the plurality of *clips* and storing *the video clips having the tracked identified common attributes into a database* of claim 12 combined with other features and elements of the claim.

Contact information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shervin Nakhjavan whose telephone number is (571)

Art Unit: 2621

272-7395. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached at (571)272-7453.

Any response to this action should be mailed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to:

(703) 872-9306 for *formal* communications,

Hand delivered responses: (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolator, etc.)

United States Patent and Trademark Office

Customer Service Window

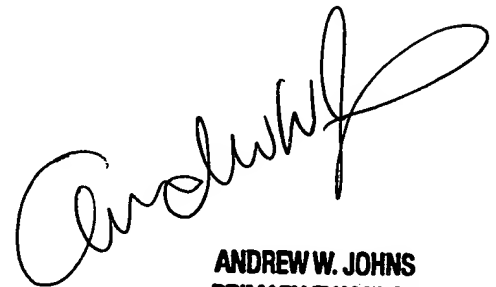
Randolph Building

401 Dulany Street

Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application should be directed to the Tech center 2600 customer service office **(571) 272-2600**.

Shervin Nakhjavan *S.N*
Patent Examiner
Group Art Unit 2621
April 16, 2005.



**ANDREW W. JOHNS
PRIMARY EXAMINER**